



THE C-27J SPARTAN PROCUREMENT PROGRAM:
A CASE STUDY IN USAF SOURCING PRACTICES FOR NATIONAL SECURITY

GRADUATE RESEARCH PAPER

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Lieutenant Colonel, USAF

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Abstract

Homeland Security and Homeland Defense affects all Americans, and all services. The purpose of this research is to shed light on the sourcing priorities for National Security capabilities by studying the C-27J Spartan aircraft procurement plan through a case study. A review of previous C-27J studies and research, published documents, news articles, and congressional testimony from military leaders is reviewed to lay the framework for analysis. The United States Air Force (USAF) core capabilities represented by the C-27J and the distinctive capabilities of Rapid Global Mobility and Agile Combat Support are discussed.

This research of development and use of the C-27J as an indicator of how the Department of Defense (DOD), and specifically the USAF, sizes the force for Homeland Security and Homeland Defense requirements to support the National Security Strategy (NSS) emphasizes the relatively low prioritization of Homeland Security and Homeland Defense missions are given. The uncertain future of the C-27J program is also examined with a call for a re-evaluation of the program and its capabilities to fill National Security missions which will contribute to the decision-making process on the fate of the C-27J program.

Acknowledgments

I would like to express my sincere appreciation to those Air Force professionals who assisted me with this endeavor. In particular, I want to thank my advisors for this project, Dr Alan Heminger and Major Dan Mattioda, for their guidance and expertise. Their insights and experience were extremely helpful and appreciated. I would like to thank Mr Don Anderson at Air Mobility Command A9/AA9 for his support throughout this project. Additionally, I need to express my gratitude to Ms Pamela Bennett Bardot, the Air Force Expeditionary Center Librarian, for her assistance on this project and many others during this past year. Pam helped me whittle reams of literature and never failed to find pertinent articles. Furthermore, I would like to thank the members of the Advanced Study of Air Mobility (ASAM) Class of 2012, the Dirty Dozen, for their support and assistance during the last year. Most importantly, I owe a special thanks to my family and friends who were patient and supportive throughout this year in the ASAM program.

Mona E. Alexander

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THE C-27J SPARTAN PROCUREMENT PROGRAM: A CASE STUDY IN USAF SOURCING PRACTICES FOR NATIONAL SECURITY

I. Introduction

For a people who are free, and who mean to remain so, a well-organized and armed militia is their best security.
- Thomas Jefferson

General Issue

The 2010 National Security Strategy (NSS), signed by President Barack Obama, directs our national efforts to “integrate homeland security with national security; including seamless coordination among Federal, state, and local governments to prevent, protect against, and respond to threats and natural disasters.” In January 2012 the Department of Defense (DOD) released ‘Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense’, signed by President Barack Obama and Secretary of Defense Leon Panetta, to recalibrate the capabilities of the Joint Force and to make selective additional investments to succeed at re-defined missions and meet the needs of the NSS at an acceptable risk level. One of the primary missions of the U.S. Armed Forces is to ‘Defend the Homeland and Provide Support to Civil Authorities’ which requires a strong steady-state force readiness. The United States Northern Command (USNORTHCOM) is the geographic combatant command responsible for the homeland and supports the NSS with the mission of “civil support and security cooperation to defend and secure the United States and its interests.” While this is no easy task, the United States Air Force (USAF) vision to be a “trusted and reliable joint partner with our sister services known for integrity in all of our activities, including supporting the joint

mission first and foremost” also supports the NSS. The USAF is only one of the force contributors to USNORTHCOM, with Air Mobility Command (AMC) being a key force provider for the USAF. However, the USAF traditionally has not focused on Humanitarian Assistance/Disaster Relief (HA/DR) and Domestic Support to Civilian Authorities (DSCA) while executing the mission “to fly, fight and win...in air, space and cyberspace.” DSCA refers to deployment of national defense assets, after approval by the Secretary of Defense or at the direction of the President, to support civil authorities for domestic emergencies, law enforcement support, special events for qualifying entities, and other domestic support. A complete list of acronyms is available in Appendix A.

In late 2005 the USAF and US Army (USA) merged acquisition programs to develop a small-capacity, intra-theater airlift capability to a single "Joint Cargo Aircraft" (JCA) program. In 2007, a joint Army-Air Force source selection team recommended filling the JCA requirement with 145 C-27J Spartan aircraft. Since that time, the proposed C-27J buy has seen a number of changes, with the expected number first reduced to 74 and then to a total of 38 Spartans (Krenke, 2009). Recent budget reductions, however, have led the USAF to recommend cancellation of the C-27J program completely stating that the JCA requirement should be filled by other aircraft. This, in turn, has resulted in many contentious discussions with the National Guard and the Army over suitable mission replacement aircraft, along with a myriad of associated issues such as the lack of capability to perform HA/DR and DSCA operations.

The C-27J program specifically supports two of the Air Force’s distinctive core capabilities; Rapid Global Mobility and Agile Combat Support, which both clearly support our national objectives. Within the Air Force, the decision was made to

designate the Air National Guard the exclusive operators of the C-27J; this is the first time a new aircraft has entered the operational inventory and gone directly to the Air Reserve Component without having an active duty operator as well (Moe, 2010).

Research Objectives

The objective of this research is to illustrate that National Security sourcing practices, in the context of Homeland Security and Homeland Defense, are a lower priority than sourcing the capabilities for current military operations. The goal of this study is to use the C-27J procurement program to see what priority level is afforded to the mission and whether that fits with other stated requirements for the USAF.

Research Focus

This research examines the development and use of the C-27J Spartan aircraft as an indicator of how DOD, and specifically the USAF, sizes the force for Homeland Security and Homeland Defense requirements to support the NSS. Chapter II presents the literature review, building upon DOD guidance and regulations and summarizing the JCA evolution to the C-27J program. An analysis of recent academic research, related studies, and strategic plans lay the foundation for the research described in Chapter III. The purpose of examining previous research in the literature review is to develop sharper and more insightful questions about the topic of study.

Problem Statement

What can be learned from studying the C-27J procurement plan that can shed light on the sourcing priorities for National Security capabilities?

Investigative Questions

National Security is a very complex subject, thus the following investigative questions narrow the scope of this research.

1. *What core USAF capability does the C-27J procurement program represent?*
2. *What will happen to the C-27J's already purchased and will they have a role in Homeland Security or Homeland Defense?*
3. *What priority is assigned to Homeland Security and Homeland Defense missions in sourcing the force?*

Methodology

This study involves unclassified research into the strategy and intent of the sourcing and procurement decisions for the C-27J Spartan program. A case study of the C-27J procurement program will lend itself to analysis of the importance of Homeland Security and Homeland Defense when sourcing decisions are made. This methodology was used due to the complexity of the subject, the current relevance of the topic and the dynamic nature of the subject. A case study is “but one of several ways of doing social science research” (Yin, 2003:1) and Chapter III provides the rationale for the appropriateness of this method with respect to the research topic. Data used for analysis

was gathered from other C-27J related research papers, published documents, news articles, and congressional testimony from military leaders. The intent is to gain an understanding of the role of National Security in sourcing decisions by investigating DOD sourcing practices relative to Homeland Security and Homeland Defense.

Assumptions/Limitations

Case studies often have no defined beginning or end points (Yin, 2003) while the revelations can vary with the definition by the individual researcher or reviewer and the scope of the study is relative to the case (Hamel, 1993). Chapter III will examine the assumptions necessary to proceed with this research and the limitations of this case study. This research examines the background behind the procurement of the C-27J. As such, the apparent cancellation of the program does not affect the methodology that contributed to the procurement decisions, although the event does lend itself to an examination of the role National Security plays in sourcing the force.

Implications

A critical case study can have strategic importance in relation to the overall issue of sourcing for National Security. This research may also provide valuable data in the continuing discussion to determine whether steady state requirements should be used to determine the intra-theater fleet size and if the current C-27J procurement plan will support our national objectives. Chapter IV discusses analysis and identifies stakeholders. The JCA and C-27J programs are examined and tied to updated strategic guidance. Chapter V closes the study out by making recommendations to senior leaders

regarding prioritization for sourcing decisions and answers to the researcher's investigative questions will be offered.

Preview

As a concerned citizen and member of the USAF, the researcher has a significant interest in ensuring that our nation is best prepared for natural or man-made disasters, to defend the homeland, and to enhance National Security. Homeland Security and Homeland Defense affects all Americans, and all services. The primary U.S. Armed Forces services affected are the USAF and National Guard in their support roles to the Department of Homeland Security (DHS). Many levels of government are continuously assessing our requirements and balancing those against future procurement plans with an increasingly limited budget. Leaders and decision-makers must take whole-of-government comprehensive review of priorities and source the force (DOD and DHS) to be able to perform the missions with which it is tasked. Otherwise, government will have to re-evaluate, on behalf of the American people, which part of our NSS to modify, ultimately resulting in the potential to leave our citizens more vulnerable during an emergency. The decisions are tough and hold grave consequences for the future of our nation if we fail to look at the bigger picture and plan accordingly, but we must plan for an uncertain and messy future while maintaining current readiness.

II. Literature Review

Chapter Overview

Before a research problem can be tackled, a review of pertinent literature is essential to understand the issue as well as enable the researcher to approach it with as much objectivity as possible. This chapter will frame the research focus by showing the evolution of the JCA program to the C-27J procurement program. Previous research on the C-27J program and formal studies are examined in addition to updated strategic guidance and the revised 30-year aviation plan.

Joint Cargo Aircraft Program Evolution

In the early 2000's, the USA and the USAF had been working separately to develop a small-capacity, intra-theater airlift capability for the respective services. In late 2005, the DOD directed the Army's "Future Cargo Aircraft" program and the Air Force's "Light Cargo Aircraft" program be merged into the single "Joint Cargo Aircraft" program. The USAF and USA agreed in 2006 that each service needed an aircraft, and it could be the same basic platform with varying intra-service requirements. The services signed a memorandum of agreement (MOA), which outlined missions, roles, command and control, service responsibilities and the way ahead for doctrine, organization, training, maintenance, logistics, leadership, personnel and facilities. The six critical JCA missions outlined were: 1) critical resupply, 2) casualty evacuation, 3) air drop (personnel/supplies), 4) aerial sustainment, 5) troop transport, and 6) homeland security (30-year Aviation Plan).

The C-27J Spartan Program Evolution

The C-27J acquisition program began in FY07 as an Army-led joint program to acquire a commercial derivative aircraft capable of providing direct support airlift of time sensitive and mission critical (TS/MC) cargo to Army ground forces. A joint Army-Air Force source selection team chose the C-27J, pictured in Figure 1, to provide this capability, and the Army awarded a firm fixed price (FFP) aircraft production and support contract to Alenia Aeronautica and L3 Communications (L3Com) in June 2007. The C-27J is a medium-size airlift aircraft that will provide flexible and responsive delivery of TS/MC equipment, supplies, and personnel to austere operating locations during contingency operations abroad, and in support of domestic homeland security and disaster response operations (Appropriation/Budget Activity Report, 2011).



Figure 1: C-27J Spartan

In FY10, the Air Force assumed full responsibility for the direct support airlift mission and sole responsibility for managing the C-27J acquisition program. Thirteen C-27J aircraft procured by the Army in FY07-09 were transferred to the Air Force as part of the transition from a joint program to an Air Force-only program (Appropriation/Budget Activity Report, 2011). The Air Mobility Master Plan for 2012 clarifies that the C-27J Spartan was selected to meet the requirements for TS/MC airlift capability “in support of numerous missions in the midst of catastrophic, traditional, disruptive, and irregular challenges” (HQ AMC/A8XPL, 2012:68).

Due to increasing budget constraints, the Pentagon underwent a thorough examination of every program with increased scrutiny prior to finalizing the 2013 budget proposal, which would ultimately determine the fate of the C-27J program. Senior Air Force leaders began backing away from specifically stating the C-27J would be the aircraft used to support the Army, but continued to pledge support to their Army brethren. In addition to friction with the Army, the interservice battle fueled by disagreements over the purchase and operation of small, fixed-wing cargo planes has caused a divide between the Air Force and its own National Guard component. During 27 October 2011 congressional testimony, USAF Chief of Staff General Norton Schwartz and USAF Vice Chief of Staff General Philip Breedlove pledged to support the Army's direct support mission with either C-27Js or C-130s (Weisgerber, 2011B). "If that mission is to be done with C-27s or C-130s is a decision that is still pending and is a part of this ongoing budget review," General Breedlove stated at a House Armed Services readiness subcommittee hearing, "but that will be worked out in the next few months." General Breedlove would not specifically address the aircraft in question, but General Peter Chiarelli, the U.S. Army Vice Chief of Staff, asserted that his service "is very committed to the C-27." While arguing to save the C-27J program, "Air and Army Guard officials said the C-27J is the best aircraft for delivering critical supplies and troops to hard-to-reach places on the battlefield" and they noted that the "twin-engine C-27J can conduct the so-called direct-support mission at a fraction of the cost of the quad-engine C-130" (Weisgerber, 2011C). A battle between the Air Force and the Army ensued over supporting the Army's direct support mission while several other factors played into the Army's concern over losing a mission capability, such as retirement of the C-23 Sherpa

and overuse of the CH-47 Chinook helicopters. According to General Schwartz at a 2 November 2011 House Armed Services Committee hearing any decisions relating to the program's future would be tied to the DOD-wide comprehensive review that will inform budget cuts across the next 10 years (Weisgerber, 2011B). According to a senior Air National Guard official, "the C-130J cannot accomplish the same mission as the C-27J; however, the C-27J is a much more cost-effective, 'right-sized' platform moving forward in the current budget environment, and also gives the Army the greatest amount of flexibility in fixed-wing airlift" (Weisgerber, 2011C). A former Army commander contributes to the argument that although the CH-47 Chinook helicopters can accomplish the same mission, it is not the best use of the platform (Weisgerber, 2011C).

General Schwartz noted that the Air Force is cutting some air mobility assets, but said the service still can handle its mobility requirements (Garamone, 2012). On 2 February 2012, Air Force Secretary Michael Donley asserted that the reason the C-27J light turboprop transport will not only be canceled, but existing aircraft retired, is because the C-130 is more versatile. "C-27 is another prominent program where we think we have good alternatives," Secretary Donley remarked. "We have demonstrated the ability of the C-130 to support the direct-support mission" (Majumdar, 2012). During a 20 March 2012 Senate Armed Services Committee (SASC) hearing Secretary Donley pledged that the Air Force would not make force structure changes until Congress reviewed the Pentagon's fiscal 2013 budget request as a response to claims that the USAF is moving ahead with plans to discontinue the C-27J program (Weisgerber, 2012D). The USAF is taking the precautionary steps to halt the program and avoid spending, or committing, further tax-payer dollars on a program that it recommends

terminating. The steps the USAF has taken are reversible, such as not exercising six contracts in order to avoid termination liabilities, and can quickly be activated. The Air Force is also not moving aircraft and equipment any further unless Congress mandates the continuation of the program.

In a 19 November 2011 signed letter to Deputy Secretary of Defense Ashton Carter, nine Congressional delegates express their deep concern over possible cancellation of the C-27J program due to budget constraints stating that the decision “would negatively impact the readiness of our military, particularly our Air National Guard, and their ability to respond to homeland defense requirements.” The committee goes on to acknowledge that we “cannot ignore a sound strategy by hollowing out our Air National Guard to, arguably, save a few dollars.” A common critique the Air Force has faced is the lack of analysis presented to Congress in support of its budget proposals. Lawmakers want to see the cost assessments that justify cutting the Guard, which provides about 35 percent of service capabilities for about 6 percent of the Air Force's overall budget (Hoffman, 2012). The Council of Governors, a group of 10 governors formed in 2010 to improve responses to national disasters, grabbed the Pentagon's attention with a high profile lobbying effort in April 2012 demanding the Air Force step back from the cuts to the Guard. The decision to cut the C-27J Spartan, and retire other airlifters, has forced lawmakers to question the Air Force's consistency when the new national strategy places a focus on air mobility in the Asia-Pacific theater. As the new strategy is incorporated in budget and sourcing decisions, the DOD will be forced to make many difficult choices.

Secretary Donley asserts that budget reductions have compelled all branches of the military to balance competing needs, resulting in some tough choices for the Air Force. "Although the Air Force is downsizing, we must still provide the force structure and capability and be prepared to respond to a dynamic environment" (Ray, 2011). Lieutenant General Christopher Miller, Air Force Deputy Chief of Staff for strategic plans and programs, noted that cutting the C-27 program "was a decision we did not like to make, but that we had to make. Its capacity, over and above the rest of the fleet, simply was not needed under the demands of the new strategy" (Harvey, 2012). General Miller also noted that the department is "going to make more disciplined use of defense dollars."

Recent Research

Major Craig Moe's graduate research project, "What Is the Best Use(s) and Missions of the C-27J?" (2010), explained that most new aircraft enter operational service with a clearly defined mission and use. The C-27J is not replacing another aircraft in the USAF operational inventory although it resembles a smaller, twin-engine C-130. The intent is to augment the C-130 and to pickup missions more suited towards the capabilities of a smaller aircraft. The C-27J was initially purchased to operate in a Direct Support (DS) role, but the Spartan has the capability to support domestic, humanitarian, and other missions flown in Afghanistan, at less cost to taxpayers (Moe, 2010). The design of the C-27J is focused on austere field operations but this can also apply in disaster relief scenarios. General Raymond E. Johns, Air Mobility Command Commander, stated he "absolutely" saw a mission for the C-27J beyond direct support, to include domestic humanitarian relief operations (Moe, 2010). In January 2010, General

Schwartz was more focused in his view of limiting the C-27J's primary role to the direct support mission. Major Moe predicts that the drawdown in both Iraq and Afghanistan will lead to a decrease in the direct support requirement and concludes that the C-27J Air National Guard units should train to conduct domestic humanitarian assistance/disaster relief operations. Just as the C-130's mission set has grown over its operational life, Major Moe predicts a similar growth pattern for the C-27J.

Major Jarod C. Hughes conducted a graduate research project entitled "Direct Support of War Fighting Forces Using Apportioned Airlift" in 2011. He concludes that Joint and AF documents should be reevaluated for currency and potentially modified to reflect on-going operations and senior leader direction. While the Secretary of Defense directed the C-27J to TS/MS mission in a DS role under tactical control of an Army commander, this direction is not aligned with Joint Publication or Air Force Doctrine. Additionally, a Lessons Learned report by HQ USAF/A9L noted that mobility leaders have "leveraged almost a decade of theater lessons in crafting comprehensive Operational Instructions (OI) and Concept of Operations (CONOP) that meet dual-Combined/Joint Operations Area obligations." He additionally concludes that apportioning the C-27J in a refined process will help the efficiency of the DS mission and will allow further investigation into the viability of other missions.

Mobility Capabilities and Requirements Study 2016

The Mobility Capabilities and Requirements Study 2016 (MCRS-16) was a joint, collaborative study designed to conduct a detailed analysis of the major components of the National Military Strategy (NMS), which included steady-state operations, lesser

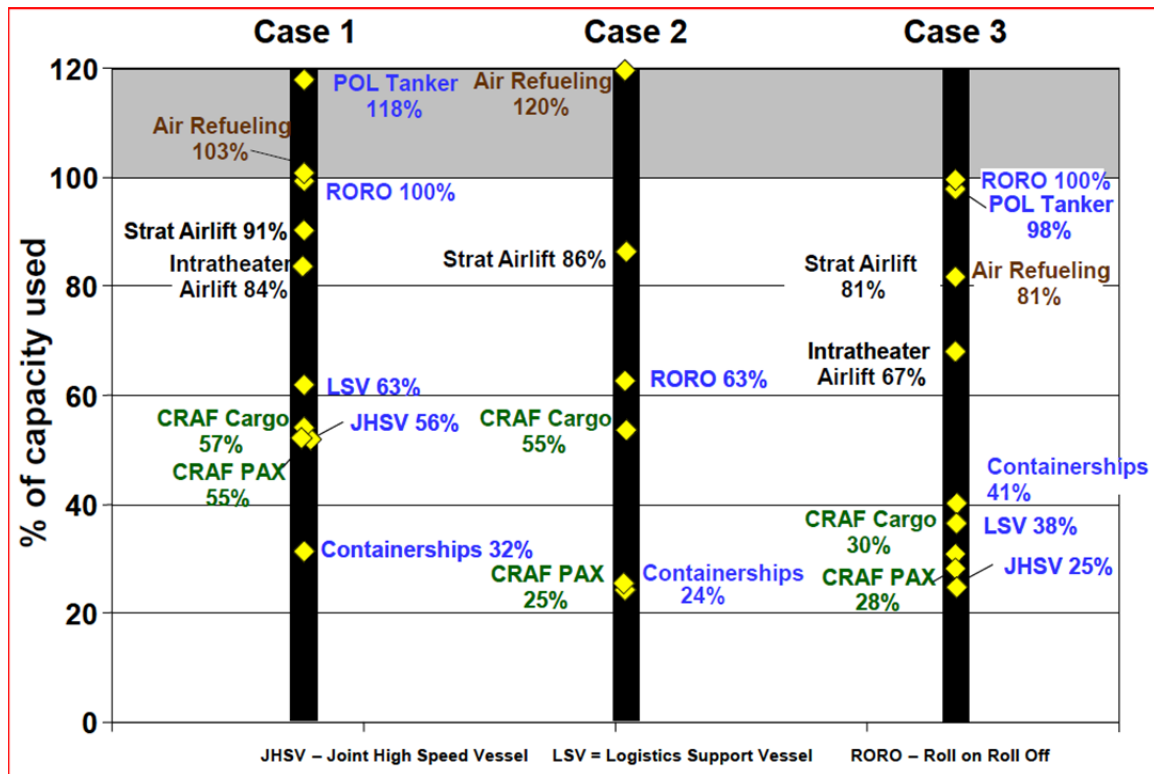
contingencies, homeland defense & major surge campaigns. It is the fifth comprehensive mobility study, the second since 9-11, and it was released in February 2010 using the programmed force in the 2009 President's Budget (PB09). The MCRS-16 Executive Summary details that the objectives were to determine the mobility capabilities and requirements needed to deploy, employ, sustain and redeploy joint forces in support of the NMS in the 2016 timeframe; to determine capability gaps/overlaps associated with the programmed mobility force structure; and to provide insights and recommendations to support the Quadrennial Defense Review (QDR) and decisions regarding mobility programs. The three cases, listed below, were developed to determine the appropriate mix of resources:

- **Case 1:** U.S. forces conduct two nearly simultaneous large-scale land campaigns, and respond to three nearly simultaneous Homeland Defense (HLD) consequence management events with corresponding aerospace control levels (ACLs) and maritime awareness presence levels, which take place concurrent with the land campaigns.
- **Case 2:** U.S. forces conduct a major air/naval campaign concurrent with the response to a large asymmetric campaign and respond to a significant HLD consequence management event with corresponding ACLs and maritime awareness presence levels. This case includes scenarios and operations that are part of the QDR Security Environment.
- **Case 3:** U.S. forces conduct a large land campaign against the backdrop of an ongoing long-term irregular warfare campaign. The case includes three nearly

simultaneous HLD consequence management events with corresponding ACLs and maritime awareness presence levels.

MCRS-16 determined that the peak demand for strategic lift occurs during the deployment phase of a major war fight and, more specifically, during the deployment to the second of two nearly simultaneous war fights. The peak demand for strategic airlift and intra-theater airlift are not concurrent. The demand for strategic airlift is at its highest during the deployment of forces. The demand for intra-theater airlift is at its highest after the majority of the forces are deployed. The peak airlift requirement in support of HLD consisted of a relatively small number of dedicated aircraft (a combination of 12 DOD aircraft and 36 commercial). These aircraft were needed to ensure Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive Consequence Management Response Force units could meet their required delivery dates. The analysis shows the use of additional DOD airlift assets does not improve overall force closure. This is because ground transportation provides the best rate of closure -- more than 10 times the rate of airlift -- when moving significant forces and large amounts of equipment from dispersed locations in response to major HLD events. The Continental United States (CONUS) road network and commercial truck fleet -- including over two million trucks for hire -- have significant capacity that outstrips the throughput capacity of airlift. The intra-theater airlift analysis included C-130s, C-17s and C-27s.

Figure 2 shows the percentage of capability of each mobility system in each of the MCRS-16 cases.



**Figure 2: Mobility System Utilization by MCRS Case
(DOD MCRS-16 executive summary)**

The programmed fleet of 401 C-130s exceeds the peak demand in each of the three MCRS cases. The highest C-130 demand occurred in Case 1, which required 335 aircraft, or 84% of the fleet, however the DS mission was not assessed and C-130s may be required to supplement C-27Js to support this mission. As expected, the peak aircraft demand in each case occurs during surge airdrop/airland operations. C-27Js were used to support the Army's requirement for the movement of TS/MC cargo. They were deployed to each major combat operation and irregular warfare campaign, as specified by the

Army, although no specific assessment of the DS missions was conducted. C-27Js provide some improvement in airfield access over C-130 aircraft.

RAND Corporation Tactical Airlift study

RAND Project AIR FORCE (PAF) completed an independent, two-month study “Tactical Airlift: Meeting the Army’s Direct Support Requirements” in April 2011 for AMC in response to a congressional request. The study showed that for DODs projected tactical airlift demand through 2016, the demand for DS was not specified but it may exceed the C-27J planned inventory of 38 aircraft and that some C-130s will be needed to meet excess demand. The study concluded that the end strength of 38 C-27Js would require C-130 augmentation and it analyzed the actual number of C-130s the USAF should maintain. Of note, the study concluded that the C-130 exceeds the C-27J payload capacity and range, has comparable airfield access, performs better in high and hot conditions, and also has better takeoff capability in case of engine loss than the C-27J (Rosello, 2011). After an assessment of the demand for DS, the study concludes that the planned C-130 fleet size of 367 aircraft, from 388 aircraft, may be higher than required and that the USAF should be able to retire more C-130s than planned. The actual final number varies depending on the amount of risk assumed when calculating the demand for DS aircraft and the way the aircraft are utilized; whether DS aircraft are ‘fenced off’ or if the aircraft are shared between general and direct support. The recommendations from this study were to start using the C-27J in theater, re-assess planning factors using actual operations, and examine the effects on the Army on the apportionment of the aircraft.

30-year Aviation Plan

Guided by the new strategic guidance, Sustaining U.S. Global Leadership: Priorities for 21st Century Defense, and by the January 2012 Defense Budget Priorities and Choices, the Pentagon's annual 30-year aviation plan represents the Department's commitment to a balanced force: one that is able to meet the unique demands of current conflicts, while providing the flexibility to respond to a broad spectrum of future challenges. The FY 2013-2017 Future Years Defense Program (FYDP) and the long-term aviation force structure and funding plans are shaped by the following primary missions defined in the new strategic guidance:

- Counter Terrorism and Irregular Warfare
- Deter and Defeat Aggression
- Project Power Despite Anti-Access/Area Denial Challenges
- Counter Weapons of Mass Destruction
- Operate Effectively in Cyberspace
- Operate Effectively in Space
- Maintain a Safe, Secure, and Effective Nuclear Deterrent
- Defend the Homeland and Provide Support to Civil Authorities
- Provide a Stabilizing Presence
- Conduct Stability and Counterinsurgency Operations
- Conduct Humanitarian, Disaster Relief, and Other Operations

Changes in technology and organizational structure make categorizing aircraft into bins of like capability increasingly difficult. However, the C-27J does not fit with any pre-existing weapon system. This aviation force structure plan provides the diverse mix of aircraft needed to carry out the primary missions identified previously. The capabilities provided by aircraft identified in this plan reflect the five principal investment objectives identified next:

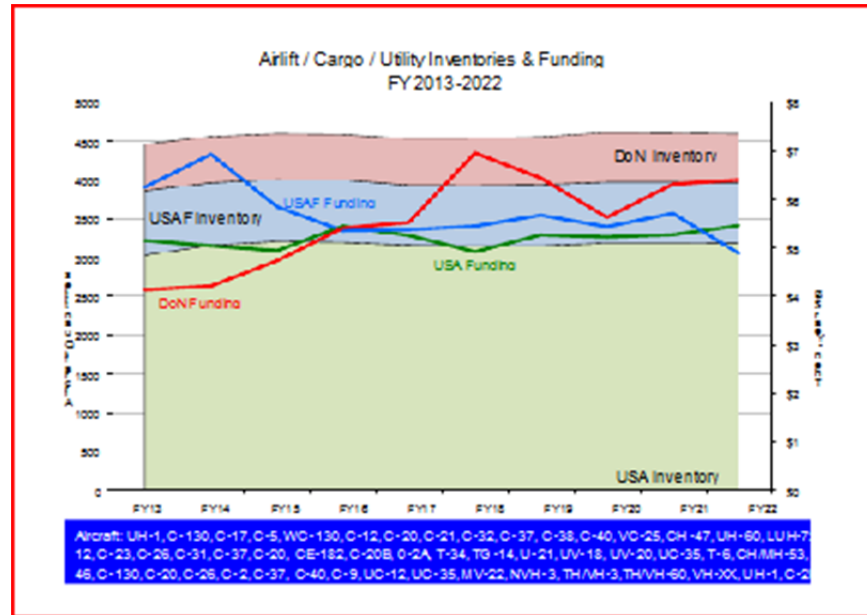
- Meet the demand for persistent, multirole intelligence, surveillance, and reconnaissance (ISR) capabilities
- Provide sufficient enabler capability and capacity
- Acquire fifth-generation fighter/attack aircraft while maintaining sufficient inventory capacity
- Modernize long-range strike (LRS) capabilities
- Emphasize modernization and readiness

The FY 2013-2042 aviation plan states it is consistent with the tenets of the January 2012 Defense Strategic Guidance and the US national security requirements. The Department's FY 2013 budget request and the associated FY 2013-2017 FYDP provide the requisite funding to implement the aviation investment plan through FY 2017 for all programs of record. The plan announces that it provides the mix of forces and capabilities to meet the broad array of security challenges the nation faces in the upcoming years and that it will evolve as security needs change. First and foremost, it assures the reader that the plan provides the capabilities necessary to prevail in today's conflicts, the wars in Afghanistan and Iraq, and potential future conflicts. It also claims that it will procure the "right aircraft at the right time to manage risk against emerging anti-access threats" (30-year Aviation Plan:5).

The 30-year Aviation Plan also shows that the Pentagon's aviation fleet will grow slightly from 14,340 aircraft today to 14,415 by 2022, with aviation spending totaling about \$770 billion during that time. The plan further reveals the DOD plans on buying two new VC-25 presidential transports (Air Force One) by the end of this decade, kicking off an effort to replace the aging T-38 Talon around 2018, new bombers and a fleet of more than 600 Unmanned Aerial Vehicles (UAV) by 2022. Interestingly, the plan lists an effort to develop a 6th-generation fighter, dubbed F-X, to replace the Air Force's F-22

Raptors and another 6th-gen jet called F/A-XX that's slated to replace the Navy's F/A-18E/F Super Hornet.

Figure 3 depicts annual Airlift / Cargo / Utility aviation inventory and funding projections over FY2013 – 2022 broken down by military department.



**Figure 3: Airlift / Cargo / Utility Inventories & Funding FY 2013-2022
(30-year Aviation Plan)**

In aggregate, the Airlift /Cargo / Utility inventory will increase about three percent over the FY2013 – 2022 time period. Aircraft inventories for FY 2012 by total aircraft and inventory are shown in Tables 1 and 2 respectively.

Table 1: 2012 Airlift / Cargo / Utility Inventory Total Aircraft
(30-year Aviation Plan)

2012 Airlift / Cargo / Utility Inventory			
Category	Inventory		
	Army	Air Force	DoN
Total Aircraft	2799	872	608
Mission	2491	641	432
Training	237	72	54
RDT&E	71	25	18
Backup, Attrition Reserve, and Other Primary aircraft	0	134	104
Active Component	1396	488	508
Reserve Component	1403	384	100

Table 2: 2012 Airlift / Cargo / Utility Inventory by Airframe
(30-year Aviation Plan)

Airlift / Cargo / Utility	Army	Air Force	DoN
	CH-47, UH-60, LUH-72, C-12, C-23, C-26, C-31, C-37, C-20, CE-182, C-20B, O-2A, T-34, TG-14, U-21, UV-18, UV-20, UC-35, T-6	UH-1, C-130, C-17, C-5, WC-130, C-12, C-20, C-21, C-32, C-37, C-38, C-40, VC-25	CH/MH-53, CH-46, C-130, C-20, C-26, C-2, C-37, C-40, C-9, UC-12, UC-35, MV-22, VH-3, TH/VH-3, TH/VH-60, VH-XX, UH-1, C-2RPL

The C-27J is not listed in Table 1 or Table 2, showing DOD Airlift / Cargo / Utility aviation assets and the 2012 current inventory for all active aircraft consistently tracked by the Departments.

The Air Force plans to retain a fleet of 318 C-130 aircraft to ensure the intra-theater airlift fleet is sized to meet the revised strategic guidance. The C-130J procurement will continue to proceed as planned and essential updates to the C-130 fleet will be made to ensure the entire fleet is compliant with 2020 and beyond international airspace mandates. Sixty-five of the oldest C-130H aircraft will be retired. The Aviation Plan (2012:15) regarding the C-27J program is the following:

The changed priorities of the revised strategic guidance also prompted the Air Force to divest the C-27J fleet, but the Air Force's commitment to support time-sensitive, mission-critical direct airlift support to the Army is unaltered. The Air Force will continue to provide time-sensitive, mission-critical direct support to the U.S. Army with other tactical aircraft. The Air Force will divest the 38 aircraft C-27J program. The 21 procured aircraft will be retired and 17 aircraft will not be ordered. The C-130 fleet is fully capable to meet Direct Support and Homeland Defense requirements and the projected life-cycle cost of the C-27J exceeds that of the more capable C-130.

The 30-year Aviation Plan reveals the answer to investigative question 2 stating that the 21 C-27J aircraft that have already been procured will be retired.

Summary

The previous decade has seen significant changes to the NMS and the sourcing strategy for the DOD. Each service has re-evaluated priorities in order to preserve capabilities based on increasing budget constraints. The Air Force Chief of Staff is "comfortable that we have a level of capability that is suited to the force structure the new strategy envisions" (Garamone, 2012). The JCA procurement was originally intended to fulfill the TS/MC mission as DS for the Army. However, upon selection of the C-27J Spartan, the potential uses for the aircraft for Homeland Security and Homeland Defense

missions have been widely speculated. The services support the Combatant Commanders (COCOM) and they must understand their customers' requirements in order to best support them. Both the USAF and USA should be sourcing to meet the needs and priorities set by the COCOM. The DS role is but one of those priorities and the potential for the C-27J to fill requirements, some of which are still undefined, should not be discounted when the fate of the C-27J program is still undecided. The methodology used in this research is discussed in the next section.

III. Methodology

Chapter Overview

A case study is “but one of several ways of doing social science research” (Yin, 2003:1) and the justification will be detailed in this chapter as to why it is the appropriate methodology for this research topic. A case study of the C-27J procurement program will lend itself to analysis of the importance of Homeland Security and Homeland Defense when sourcing decisions are made. The intent is to gain an understanding of the role of Homeland Security and Homeland Defense in sourcing decisions by investigating DOD sourcing practices relative to Homeland Security and Homeland Defense.

Assumptions/Limitations

In order to proceed with the case study, several assumptions and limitations must be detailed. The scope of this case study is confined to unclassified resources. Several pre-decisional position papers and classified documents were made available to the researcher, but the contents are not included in this case study. While it appears the C-27J programs lifespan has been cut short, the researcher can use the planning factors and decisions to build this case study. As with any case study, researcher bias is a limitation although every attempt has been made to present a fair case to the reader.

Case Study

A case study is an in-depth investigation (Hamel, 1993) and is valuable for investigating how a program changes over time and as a result of certain circumstances

(Leedy and Ormrod, 2010). Case studies are useful to “contribute to our knowledge of individual, group, organizational, social, political, and related phenomena” (Yin, 2003:1). The goal of a case study is to expand and generalize theories, not to enumerate particular occurrences or frequencies. One commonly stated major weakness of case studies is that the findings are not necessarily generalizable to other situations (Leedy and Ormrod, 2010:137). Yin (2003:10) argues that “case studies, like experiments, are generalizable to theoretical propositions and not to populations or universes.” Therefore, understanding the context surrounding the case is very important. A thorough examination of the case, and detailed explanation, will enable others to draw conclusions about the extent to which the case study findings might be applicable to other situations. Leedy and Ormrod opine that when only a single case is studied, any generalizations must await further support from other studies. By collecting data from multiple sources and finding a convergence of the many separate pieces of information, the researcher is able to promote an understanding of the issue.

Case studies have also been criticized for reliance on the common sense of the researcher (Hamel, 1993). However, every experiment and study is subject to some sort of influence by the person conducting the said trial. A common occurrence in case studies is that data gathered during the data collection process tends to lead to preliminary conclusions that are likely to influence the kind of data sought out through the remainder of the study. The data sought can also be influenced by the researcher’s personal opinions and experiences. An objective review of the data collected should allow each reader to reach a similar conclusion and, in the case study of the C-27J procurement program, draw an inference to National Security sourcing practices.

C-27J Procurement Program as a Case Study

A case study is an empirical inquiry that is used to “investigate a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident” (Yin, 2003:13). A “case study inquiry copes with the technically distinctive situation in which there will be many more variables of interest than data points” (Yin, 2003:13) and “relies on multiple sources of evidence, with data needing to converge in a triangulating fashion” (Yin, 2003:14). The C-27J procurement program fits into the context of this definition very nicely and has led the researcher to this methodology. The C-27J program has many yet-unquantified variables of interest and very few data points. Although 21 of the planned 38 aircraft have currently been procured, the C-27J has yet to be documented as employed in the Homeland for National Security purposes. This researcher chose to use a case study as the methodology due to the complexity of the subject and current relevance of the topic. This study involves unclassified research into the strategy and intent of the sourcing and procurement decisions for the C-27J Spartan program.

This case study will be comprised of data gathered via a review of DOD and USAF publications, C-27J previous research and studies, published documents, news articles, and congressional testimony from military leaders.

Many different groups are interested in the sourcing and eventual operation of the C-27J. Those different groups can be identified as the many stakeholders associated with the C-27J program. In this case study, the stakeholders will be identified in varying roles as customers, users and other interested parties such as politicians. The interests of the

stakeholders will be highlighted, as well as their influences on current policy and programs.

Summary

A case study is one method to examine the current environment and priorities for the C-27J procurement program. The abundance of recent activities surrounding the C-27J program shows that many stakeholders are involved in influencing the future of the program. The following chapter will analyze sourcing strategy and the potential outcomes for the C-27J program, as well as uses for the aircraft that have already been put into operation. Through review of the compiled information, sourcing priorities can be deduced and recommendations for future study and action can be made.

IV. Analysis and Results

Chapter Overview

In the last decade a requirement was defined for an aircraft to augment the C-130 as well as pickup new missions and perform DS for the U.S. Army. The JCA procurement program began with a validated need and the C-27J Spartan was chosen by a joint Army-Air Force selection team to provide flexible and responsive delivery of TS/MC cargo. The six critical JCA missions outlined in the Army-Air Force MOA were: 1) critical resupply, 2) casualty evacuation, 3) air drop (personnel/supplies), 4) aerial sustainment, 5) troop transport, and 6) homeland security (30-year Aviation Plan). Homeland Security appears last on many lists, if at all, and indicates the relative importance of the mission, almost as an after-thought. The mere fact that it is listed as a requirement for the JCA to perform is significant although most literature focuses on missions other than Homeland Security such as the first five missions listed for the C-27J. The aircraft has not had the opportunity to prove its capabilities in the Homeland and the program is now on the chopping block, leaving the Homeland Security mission without full support. The various stakeholders are taking notice and making their voices heard to the decision makers as the C-27J program faces elimination.

Stakeholders

The systems theory “identifies the importance of achieving a balance among the various parts of the system of which an organization is but one part” (Gibson et al., 2012:23). There are many interested parties in the C-27J and each group holds a different

viewpoint as to the best way to complete procurement and program implementation therefore achieving a balance between budget constraints and requirements. Reaching a solution that satisfies the stakeholders is a significant issue.

The first stakeholders identified are the customers; primarily the US Army due to their DS role but, ultimately, the Combatant Commander since the services provide capabilities to the COCOM and they must understand their customers' requirement in order to best support them. The USAF and National Guard are interested users and the American public are customers in the HA/DR and DSCA roles. However, the Department of Homeland Security or the United States Coast Guard (USCG) could also be customers, and users, if they eventually receive C-27J's. Hammer and Champy (2006:21) advise that customers "demand products and services designed for their unique and particular needs" while in this case, the customers have solely their best interests in mind and not necessarily the procurement solution that will benefit the whole of government; DOD, DHS and USCG. While we are becoming an increasingly joint military, there are still many institutions and thought-processes that are not fully integrated. This procurement plan attempted to forcefully bridge that gap since the USAF was purchasing the C-27J to be operated by the National Guard (both the Air National Guard and Army National Guard) in direct support of the US Army. Emphasizing the need for the JCA, General Chiarelli, avowed that the aircraft "provides a tremendous capability for homeland defense, and that is one of the things that was critical about the C-27 and its ability to get into airfields here in the United States that other aircraft can't get into in the event of homeland defense kinds of missions" (Weisgerber, 2011B).

The second set of stakeholders are the users, the USAF and National Guard and possibly DHS and USCG in the future. Assuming that the aircraft will have a dual role—combat airlift and disaster response—and that only the National Guard will operate them under authority of the governors of the several states, one can argue that the DHS will benefit from DOD-procured aircraft without incurring any of the associated costs. If this solution is explored, DHS should be able to take a larger share of the cut from their allocated budget in order to allow the DOD to fully fund and proceed with the C-27J program. A 2008 report from the Government Accountability Office (GAO) noted a planning and budgeting disconnect between the DOD and DHS: neither organization budgeted for unique military equipment to support homeland security, mistakenly believing that the other did so (Conway, 2010). The C-27J program could be the first step to bridge this gap. Given the relative youth of the DHS, Colonel Conway recognized that this situation may have stemmed from failure to understand the roles of the nation's military in disaster response and reluctance to earmark a piece of equipment solely for that purpose in an era of declining resources. The issue has become more contentious given the current fiscal situation.

The final stakeholders identified are the politicians that represent the citizens of our nation. Politicians are concerned with 1) protecting the nation, 2) jobs in their districts, and 3) maintaining their state militia, in varying orders of priority. These concerns play a large role in forming their opinions for basing and sourcing decisions. The impacts of cutting any program are felt in many congressional districts and politicians tend to focus on the welfare of their individual districts. Certain lawmakers have voiced opposition to canceling the program, including the entire Connecticut

congressional delegation, who wrote Deputy Secretary of Defense (DepSECDEF) Ashton Carter, urging him to “reject any recommendation to terminate the program or reduce the current [Air National Guard] beddown plan” (Weisgerber, 2011C). The Connecticut Air National Guard is slated to receive some of the planes, but the Air Force has yet to purchase the aircraft for the wing. Other Air National Guard units are already flying the C-27J, and two aircraft have been deployed in Afghanistan. Congressional delegates point out to DepSECDEF Carter, that seven Air National Guard units are slated to receive and operate the 38 C-27J aircraft that are left in the program after it was “arbitrarily reduced from 78” aircraft. Furthermore, they state that “a decision to cancel the program, and worse, not procure the actual aircraft shows bad faith and creates an unnecessary readiness risk for our military forces across the globe” (Bordallo et al., 2011). Several lawmakers whose districts stand to lose aircraft or personnel voiced their opposition to the Air Force’s proposed force structure cuts during an April 17 hearing, when the House Armed Services Committee (HASC) gave non-committee members the opportunity to propose legislation for the defense authorization bill (Weisgerber, 2012D).

Each set of stakeholders has varying interest in the future of the C-27J program. The USAF is represented as multiple stakeholders, with varying vantage points. The new strategy shifts a focus to protecting the homeland and this will affect the views of each of the stakeholders. National Guard & many lawmakers argue the C-27J program should be a priority program to continue while the USAF has conflicting views on its actual priority. A delicate balance between budget realities and operational requirements must be reached in order to align sourcing practices with strategy.

Strategic Sourcing

In February 2012, the USAF released a new strategy to align with constrained budgets. The USAF FY 2013 budget submission demonstrates a trade in size for quality and a focus on being a superb force that maintains the “agility, flexibility, and readiness to engage in a full range of contingencies and threats” (2012:1). Given the fiscal reality of the budget, the new strategy plans elimination the C-27J program but challenges Airmen to “continue to meet emerging challenges and ensure the security of the Nation and its bright future” (2012:5). However, in February 2012 HASC testimony, General Schwartz remarked “the Air Force is structuring the future force to be agile and responsive as part of the Defense Department's strategic guidance and must accept some risks with a smaller force” (Williams, 2012). These risks are characterized but held at the classified level.

According to the Air Mobility Master Plan (AMMP), the forum for addressing capability improvements is AMC’s Requirements and Planning Council (R&PC) process. The R&PC established the Command’s priority for projects taking into account the Air National Guard (ANG) and AMC/A5/8 approved projects and prioritized ranking. The C-27J was added to the R&PC process in 2011 to identify possible future capability improvements. This researcher was unable to access what, if anything, was identified as a future capability since the C-27J was added to the process however, the AMMP does not include Homeland Security and Homeland Defense in the possible mission set for the C-27J. The C-27J aircraft is not listed in the 30 year aviation plan, Table 1, accounting for all DOD Airlift / Cargo / Utility aviation assets. Nor is it in the 2012 inventory of all

active aircraft consistently tracked by the Department, Table 2, although 21 aircraft have been purchased. This illustrates that the DOD has begun planning for future operations without using the C-27J. However, the planning factors and new studies should include the C-27J to explore its potential impact on National Security related missions for the aircraft already purchased. The cost benefit analysis that was done in the 30-year aviation plan is not readily available and was used to determine that the C-27J lifecycle costs are prohibiting the continued procurement and worth the cost of cancelling the program completely. The C-130 may be more capable in terms of the amount of cargo it can carry or the distances it can haul the cargo, but some of the initial requirements of the JCA program are not considered in the blanket statement that the C-130 is a suitable replacement for the C27J. The RAND PAF study concluded that 38 C-27J aircraft would not be enough to support the planning scenarios, therefore C-130s would be needed to augment. They recommended starting to use the C-27J in theater to gather data and re-assess planning factors. The lack of data from previous DSCA missions by the National Guard is an issue they are working to correct with the new study directed by the Chief of the National Guard Bureau (CNGB). The absence of hard data is a problem the National Guard is tackling in order to accurately show the need for a Joint Cargo Aircraft within the homeland to do the mission it has been tasked to support. The increasing budget constraints are only stressing the DOD more and the focus is drifting from sourcing for Homeland Security and Homeland Defense requirements to other priorities.

The MCRS-16 cases included the C-27J not only in its primary role, but also planned for use of the aircraft in Homeland Security and Homeland Defense roles. As the C-27J program has evolved, a growing expectation for use in Homeland missions has

become evident. Noting the possible extensive use of this type of aircraft, General T. Michael Moseley affirmed that he “would like to see an aircraft capable of hauling 1-2 pallets of cargo or up to 30 people around the theater. Such an aircraft would have been useful on the Gulf Coast after Hurricane Katrina” (Butler, 2005:1). Given the Air National Guard’s state support/disaster relief mission, and assignment of the C-27J exclusively to guard units, it is relatively simple to envision a scenario where the C-27J is used in hurricane relief type operations (Moe, 2010) or other natural disasters. Using the aircraft for Homeland Security and Homeland Defense has evolved as a potential mission set but not one the aircraft was originally, officially, procured to perform. However, the placement of the aircraft in the National Guard structure lends itself nicely to these additional missions.

The MCRS-16 scenarios assume that roads, railways, bridges and runways, where needed, will all be in working order. However, a major earth quake can cause significant damage for hundreds of miles and render most ground modes of transportation useless or at the very least severely handicapped. An agile aircraft capable of austere field operations would be very beneficial in the initial hours of disaster response. As noted by previous researchers, Homeland Security and Homeland Defense missions require a high level of aircraft versatility (Moe, 2010). Each disaster presents a different scenario; as such the C-27J could have many potential uses and positive effects on state and national response capabilities. As Major Moe points out, basic operating support equipment, such as external power carts and material handling equipment, may be nonexistent or non-operational in a disaster response scenario. There may also be wide-spread power outages as well as a myriad of reasons that airport employees may not be able to reach

their duty stations. Even an airfield which normally has a full range of services available may be reduced to the status of an austere airfield suitable only for an aircraft with tactical performance capabilities such as landing on night vision goggles, and self-contained electrical ground power systems. A recent example of such a situation was encountered in Operation Tomodachi. He concluded that the C-27J is ideally suited for homeland defense operations. Major Hughes concluded Joint and AF documents should be reevaluated for currency and potentially modified to envision possibilities for the C-27J to perform other missions.

The MCRS-16 acknowledges that the current strategy places “increased emphasis on DOD support to Homeland Defense” and this established the C-27J procurement process as a step in the right direction to supporting the national strategy. However, it also demonstrated that the C-27J sourcing decisions were based mainly on current deployment requirements, with nominal Homeland Defense mission support considerations. Using mainly the steady state requirements to determine the intra-theater fleet size reveals a potential for a significant gap in being able to support our citizens in the event of a natural or man-made disaster and the ability to perform DSCA operations. Nine Congressional delegates point out to DepSECDEF Carter that

neither the 2006 Mobility Capability Study or the 2010 Mobility Capability and Requirements Study comprehensively analyzed all aspects of intra-theater airlift requirements in the mission areas of time sensitive-direct support, homeland security, Air Force and Army National Guard domestic airlift operations in support of contingencies resulting from man-made and natural disasters, humanitarian crises, emergencies, and combatant commander warfighting requirements (Bordallo et al., 2011:1).

The FY12 National Defense Authorization Act (NDAA) Conference Report on Airlift boasts almost identical verbiage in criticism of the two studies and notes that the

reduction of C-27J aircraft from 78 to 38 is “unjustified, premature and based on insufficient analytics, and moreover, executed for budgetary reasons” (NDAA, 2012:2) yielding that strategic decisions should not be driven by budgetary causes. The report also declares that the DOD

continues to struggle with sufficiently, and comprehensively, analyzing and defining intra-theater airlift mobility requirements for active and reserve components, as well as National Guard units supporting both title 10 and title 32, United States Code, airlift mobility operations (National, 2012:2).

Furthermore, the committee supports the procurement of 9 C-27J aircraft in fiscal year 2012 and the acquisition of C 27Js in fiscal year 2013 and beyond to meet the requirements of the National Guard, unless the DOD has analysis that indicates the original requirement for 78 C-27J aircraft is no longer valid (National, 2012).

Additionally, the homeland defense scenarios used in both the RAND PAF Direct Support study and the MCRS-16 are under revision. These updates will impact the future assumptions used to size the force. Two concurrent airlift studies, a NDAA Directed Airlift Study and a CNGB Directed Aviation Study, were started the week of 26 March 2012. Their guidance and analytic baseline are expected to be the same therefore the results are expected to be very similar or at least complementary. The studies will include both rotary wing and fixed wing assets and are capability based assessments. The CNGB Directed Aviation Study will be the first study that fully incorporates National Guard and DSCA requirements and is intended to shed light on programmatic decisions that have been made that may degrade the National Guard’s aviation capacity to support Homeland Defense and DSCA. These updated studies are a positive step in the right direction towards sourcing for our actual requirements, including homeland security.

Homeland Security and Homeland Defense impacts all Americans and all services. The USAF and National Guard are primarily affected, in support roles to the DHS. Many levels of government continuously assess and revise requirements, and balance those against procurement plans with an increasingly limited budget. The SASC tasked the Under Secretary of Defense for Policy to provide a report on the appropriate structure and processes in place for estimating requirements for DOD domestic support, and then translating those requirements into DOD programs. This report was requested by submission of the FY13 budget request, but completion cannot be verified at this time. The report should also contain the extent that the current requirements may not be satisfied within existing DOD forces (FY12 NDAA) and this key information would be useful towards future sourcing decisions. Up to this point, our military and the National Guard have found ways, via creative use of ‘training’ exercises, to support domestic events. However, this highlights the issue that the homeland support requirements are very difficult to predict since there is very little historical data compared to the amount of data available to justify operations Outside the Contiguous United States (OCONUS). Additionally, the nature of domestic events varies widely which leads to difficulties in planning out likely scenarios followed by more difficulty planning the response due to the lack of historical data.

Summary

The DOD has requirements for supporting domestic missions, such as those from the DHS, and infers that it can muster the appropriate support for domestic missions from within the forces that are derived from war fighting requirements. As the wars in Iraq

and Afghanistan draw to a close, the assumption that fewer assets will be needed for support and can be available for use in the Homeland is an assumption that can lead to complications when actual emergencies occur. The world continually has evolving threats and contingencies that take our forces out of the homeland and make them unavailable for DSCA and National Security missions. Counting on those forces being available in a time of need short-changes the importance of defending and protecting the homeland while undercutting the importance of sourcing to meet National Security objectives. Planning factors should allow for enough aircraft to simultaneously support missions in the Homeland and OCONUS. The possible mission set for the C-27J has been expanded to fulfilling a homeland security and response role to support the NSS, but only if the aircraft remains in service.

V. Conclusions and Recommendations

There is no doubt that our nation's security and defeating terrorism trump all other priorities. - Arlen Specter

Investigative Questions Answered

This section will begin with answering the investigative questions.

1. *What core USAF capability does the C-27J procurement program represent?*

Understanding the context of the requirements to support domestic missions and comparing that to the Air Force's three core competencies: Developing Airmen, Technology-to-Warfighting and Integrating Operations, is a crucial step in understanding the prioritization of National Security on sourcing decisions. From reviewing National and Military Strategy documents, as well as USAF strategy and planning documents, it can be seen that the C-27J is a tool of combat capabilities and represents the Technology-to-Warfighting capability; thus demonstrating the Air Force's proud legacy of continually bringing cutting-edge technological capabilities to bear to confront threats to our nation's security. However, the C-27J also supports the Integrating Operations core capability in the spirit of jointness in the fast-paced environment of the 21st century and maximizes combat capabilities. These core competencies are demonstrated through the C-27J distinctive capabilities of Rapid Global Mobility and Agile Combat Support.

2. *What will happen to the C-27Js already purchased and will they have a role in Homeland Security or Homeland Defense?*

The 30-year aviation plan reveals that the 21 C-27J's already purchased will be retired and they will not be used by the U.S. Government for Homeland Security. This

researcher sees an opportunity for a private firm to acquire and operate these aircraft under contract to the U.S. Government. Many stakeholders are resisting the 30-year Aviation Plan for the C-27J and, ultimately, the FY 13 budget will decide the fate of the aircraft and program for the immediate future.

3. *What priority is assigned to Homeland Security and Homeland Defense missions in sourcing the force?*

Homeland Security requirements are not clearly defined and an effort must be made in order to define the need, so it can be appropriately sourced. Colonel Conway's research referencing the 2008 GAO report highlighted the need for segments of the government to plan together in order to avoid gaps in mission support and emphasized a need to focus on a whole of government approach to National Security. A review of the multiple studies regarding the procurement plan for 38 C-27J's demonstrated that the Air Force, and DOD, are not sourcing for the full mission they have been tasked to support due to assumptions that were made in the process and the lack of historical data. While the actual sourcing priority level is undefined, it appears to be a lower priority than this researcher feels is reasonable given the criticality and no fail mission of National Security. Furthermore, cancellation of the C-27J program will affect overall preparedness in an undetermined manner so a deliberate calculation of the ability of the force to meet the missions necessary to support the NSS must be completed. We must find a way to deal with the uncertain and messy future while maintaining our capabilities against current, and emerging, threats.

Significance of Research

Our leaders and decision-makers must take DOD-wide comprehensive review of priorities and source our force (including DOD and DHS) to be able to perform the missions with which they are tasked. Otherwise, our government will have to re-evaluate, on behalf of the American people, which part of our National Strategy to modify and could potentially leave our citizens more vulnerable during an emergency. The decisions are tough and hold grave consequences for the future of our nation if we fail to look at the bigger picture and plan accordingly.

As part of the discussion to determine whether steady state requirements should be used to determine the intra-theater fleet size and whether the current C-27J's procurement plan will support our national objectives, the focus needs to be on supporting the National Security Strategy signed by the President. Currently, the Air Force and DOD are not as focused on supporting DSCA and Homeland Support requirements when determining how to size the force mainly due to the lack of a means to evaluate the requirements.

Recommendations for Action

Given the January 2012 'Sustaining U.S. Global Leadership: Priorities for the 21st Century Defense' recalibration for the capabilities of the Joint Force, a new MCRS-type study must be accomplished. To ensure DSCA requirements are met, all COCOMs should be invited to the next MCRS-type study, specifically USNORTHCOM should be a participant. Additionally, a comprehensive analysis of the current usage rates of

National Guard assets is required to establish a baseline for homeland support requirements and provide better context for future sourcing decisions concerning capabilities necessary to support the NSS.

Limitations of the study

A limitation of a case study is the potential to contain a bias toward verification, or a tendency to confirm the researcher's preconceived notions. Many peer reviews and scholar opinions sought throughout the research process attempted to combat any bias. The methodology of a case study is more theoretical and therefore is only part of a solution to a large problem in the real world. While there is no clear beginning or ending to a case study, the overlap of data became a signal that all pertinent information had been reviewed. Limiting data collection from solely unclassified sources may have eliminated some critical information which may lead to incomplete assessment of the information gathered and deficient conclusions to be reached. Additionally, interviews with relevant players in the decision process would strengthen the conclusions.

Recommendations for Future Research

Upon completion of the concurrent airlift studies started 26 March 2012, the NDAA Directed Airlift Study and the CNGB Directed Aviation Study, a new case study should be accomplished. Additional research to define the requirements for supporting the Homeland Security and Homeland Defense missions must be completed in order to validate the assumptions made in a new MCRS-type study. Future research as to the viability of the C-130 to fulfill the missions assigned to the C-27J and the number of

C-130s required in the inventory will contribute to the decision process on the fate of the C-27J program.

Future research using a different weapon system is useful to validate the priority that National Security missions are sourced to meet. Including classified sources will add to clarity and completeness of the results. A Delphi study would be useful to incorporate the views of Senior Military leaders as well as research utilizing a survey to capture National Guard and USA viewpoints would contribute to a broader understand of the prioritization issue. A re-evaluation of the C-27J program and capabilities to fill National Security missions would contribute to the decision-making process on the fate of the C-27J program.

Summary

We should heed President Dwight D. Eisenhower's warning that we "will bankrupt ourselves in the vain search for absolute security" as we take action to source the force. The enemy will continue testing our security and preparedness by getting as many shots on goal as possible while the goalie only has to miss one shot for the enemy to claim success. Absolute security and preparedness are not possible and we can only hope to minimize our risk by smartly sourcing our force. It is the responsibility of the U.S. military to be prepared to support the NSS and respond, when called upon, to national emergencies and disasters.

Appendix A

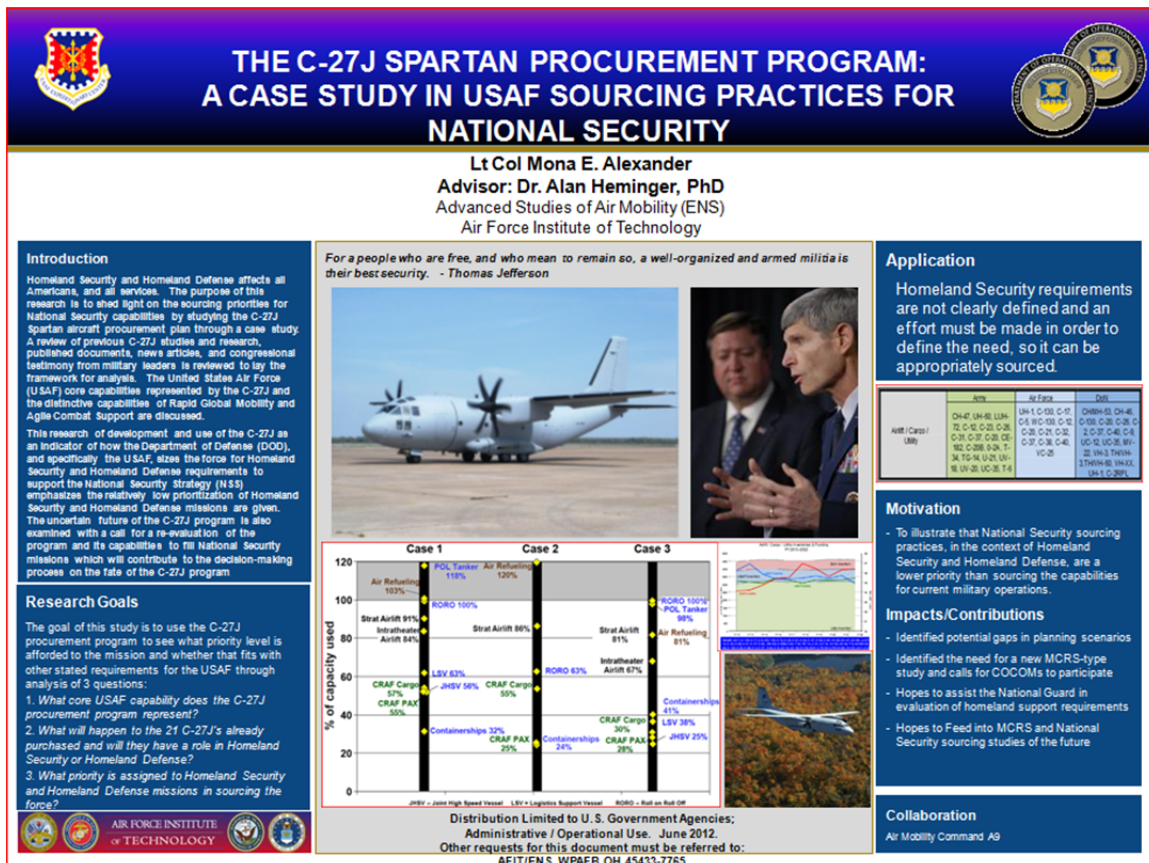
Acronym List

AAMP	Air Mobility Master Plan
ACL	Aerospace Control Levels
AMC	Air Mobility Command
ANG	Air National Guard
COCOM	Combatant Commander
CONOP	Concept of Operations
CONUS	Continental United States
CNGB	Chief of the National Guard Bureau
DepSECDEF	Deputy Secretary of Defense
DHS	Department of Homeland Security
DOD	Department of Defense
DS	Direct Support
DSCA	Domestic Support to Civilian Authorities
FFP	Firm Fixed Price
FYDP	Future Years Defense Program
GAO	Government Accountability Office
HA/DR	Humanitarian Assistance/Disaster Relief
HASC	House Armed Services Committee
HLD	Homeland Defense
ISR	Intelligence, Surveillance, and Reconnaissance

JCA	Joint Cargo Aircraft
L3Com	L3 Communications
LRS	Long-Range Strike
MCRS	Mobility Capabilities and Requirements Study
MOA	Memorandum of Agreement
NDAA	National Defense Authorization Act
NMS	National Military Strategy
NSS	National Security Strategy
OCONUS	Outside the Contiguous United States
OI	Operational Instructions
PAF	Project AIR FORCE
PB	President's Budget
QDR	Quadrennial Defense Review
R&PC	Requirements and Planning Council
SASC	Senate Armed Services Committee
TS/MC	Time Sensitive and Mission Critical
UAV	Unmanned Aerial Vehicles
USA	United States Army
USAF	United States Air Force
USCG	United States Coast Guard
USNORTHCOM	United States Northern Command

Appendix B

Quad Chart



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14. ABSTRACT Homeland Security and Homeland Defense affects all Americans, and all services. The purpose of this research is to shed light on the sourcing priorities for National Security capabilities by studying the C-27J Spartan aircraft procurement plan through a case study. A review of previous C-27J studies and research, published documents, news articles, and congressional testimony from military leaders is reviewed to lay the framework for analysis. The United States Air Force (USAF) core capabilities represented by the C-27J and the distinctive capabilities of Rapid Global Mobility and Agile Combat Support are discussed. This research of development and use of the C-27J as an indicator of how the Department of Defense (DOD), and specifically the USAF, sizes the force for Homeland Security and Homeland Defense requirements to support the National Security Strategy (NSS) emphasizes the relatively low prioritization of Homeland Security and Homeland Defense missions are given. The uncertain future of the C-27J program is also examined with a call for a re-evaluation of the program and its capabilities to fill National Security missions which will contribute to the decision-making process on the fate of the C 27J program.						
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